

REMARKS

Claims 1-16 are pending in the present application.

In the Office Action, claims 1-16 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent Application Publication No. 2001/0041305 ("US '305").

Applicants respectfully traverse the rejection and submit that US '305 does not anticipate or render obvious the present invention.

The Examiner rejects the present invention as allegedly being anticipated by or obvious in view of sections [0021] to [0023] of US '305.

Claim 1 recites extracting components with a wavelength of 2 μm or more and 50 μm or less and 0.2 μm or more and 2 μm or less. Claim 3 recites extracting components with a wavelength of 0.2 μm or more and 2 μm or less. Claims 4 and 6 recite extracting components with a 0.02 μm or more and 0.2 μm or less.

Section [0020] states "The aluminum substrate (a) having a surface area which is 2 times to 30 times a unit surface area can be easily obtained by a method in which a micropore sealing treatment is conducted after the anodizing treatment, or other methods." In addition, section [0019] states "(a) the substrate has an average roughness Ra at the center line of 0.5 μm or less, and has a surface area of 2 times to 30 times a unit surface area, (b) micropores present in an anodized film on the above-described substrate have a pore diameter of 1 to 5 nm and a pore density of 8×10^{15} to $2 \times 10/\text{m}^2$." Thus, the range of the pore diameter of the micropores of US '305 is 1 to 5 nm.

Accordingly, the components extracted with a wavelengths in the order 0.2 μm (200 nm) (claim 1 and claim 3) and 0.02 μm (20 nm) (claim 4 and claim 6) are quite different from the order of 1 to 5 nm.

In addition, the Examiner asserts that US '305 teaches "controlling the surface area of the substrate to fall within a range of 2 to 30 times the apparent surface area." Paragraph [0022] of US '305.

Claim 1 recites "where, $\Delta S^{50(50)}$ is the surface area ratio which can be obtained by the following equation from an actual area Sx^{50} obtained by a three-point estimate from the three-dimensional data and a geometrically measured area So^{50} , $\Delta S^{50(50)} = [(Sx^{50} - So^{50}) / So^{50}] \times 100$ (%) (1-1)." Therefore, if US '305 teaches "controlling the surface area of the substrate to fall within a range of 2 to 30 times the apparent surface area," as asserted by the Examiner, the range of 2 to 30 times can be inserted in the above equation (1-1).

Then, $Sx^{50} = \text{surface area } 2 \times So^{50} \text{ to } 30 \times So^{50}$

$$\Delta S^{50(50)} = [(2 \times So^{50} - So^{50}) / So^{50}] \times 100 (\%) = 100 \%$$

$$\Delta S^{50(50)} = [(30 \times So^{50} - So^{50}) / So^{50}] \times 100 (\%) = 2900 \%$$

The ratios $\Delta S^{50(2-50)}$ and $\Delta S^{50(0.2-2)}$ of claims 1 and claim 3, and the ratio $\Delta S^{50(0.02-0.2)}$ of claim 4 and claim 6 can also be calculated in the same manner, and resulted in the same values of 100% to 2900%. Therefore, the surface area ratios taught by US '305 would be 100% to 2900% if, as asserted by the Examiner, US '305 teaches controlling the surface area to fall within a range of 2 to 30 times the apparent surface area.

Claim 1 recites:

(1-i) A surface area ratio $\Delta S^{50(50)}$ is 20 to 90%,

(1-ii) A surface area ratio $\Delta S^{50(2-50)}$ is 1 to 30%, and

(1-iii) A surface area ratio $\Delta S^{50(0.2-2)}$ is 5 to 40%.

Therefore, $\Delta S^{50(50)}$, $\Delta S^{50(2-50)}$, and $\Delta S^{50(0.2-2)}$ of claim 1 are all outside the range of 100 to 2900% of US '305.

In addition, claim 3 recites "(2-i) A surface area ratio $\Delta S^{50(50)}$ is 30 to 60%." Thus, $\Delta S^{50(50)}$ is outside the range of 100 to 2900% of US '305.

Further, claim 4 recites "(3-i) A surface area ratio $\Delta S^{5(0.02-0.2)}$ is 30% to 50%." Therefore, $\Delta S^{5(0.02-0.2)}$ is outside the range of 100 to 2900% of US '305.

Finally, claim 6 recites:

(4-i) A surface area ratio $\Delta S^{5(5)}$ is 20 to 90%,

(4-ii) A surface area ratio $\Delta S^{5(0.2-5)}$ is 5 to 40%, and

(4-iii) A surface area ratio $\Delta S^{5(0.02-0.2)}$ is 15 to 70%.

Thus, $\Delta S^{5(5)}$, $\Delta S^{5(0.2-5)}$, and $\Delta S^{5(0.02-0.2)}$ of claim 6 are all outside the range of 100 to 2900% of US '305.

Hence, US '305 does not disclose, teach or suggest the claimed surface area ratios of claims 1, 3, 4 and 6 of the present invention.

Moreover, each of claims 2, 5, and 7-16 depend, directly or indirectly, from claims 1, 3, 4 or 6. Therefore, it is respectfully submitted that these claims are patentable for at least the same reasons as claims 1, 3, 4 and 6.

In view of the above, it is respectfully submitted that US '305 does not anticipate or render the present invention obvious. Accordingly, withdrawal of the foregoing rejection is respectfully requested.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No.: 10/655,369

Attorney Docket No.: Q75427

For the foregoing reasons, reconsideration and withdrawal of the §102/103 rejection, and allowance of claims 1-16 are respectfully requested.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

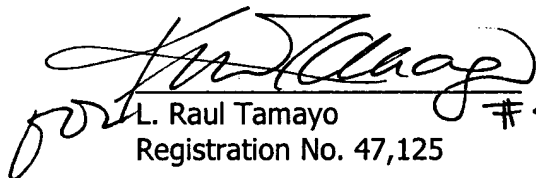
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